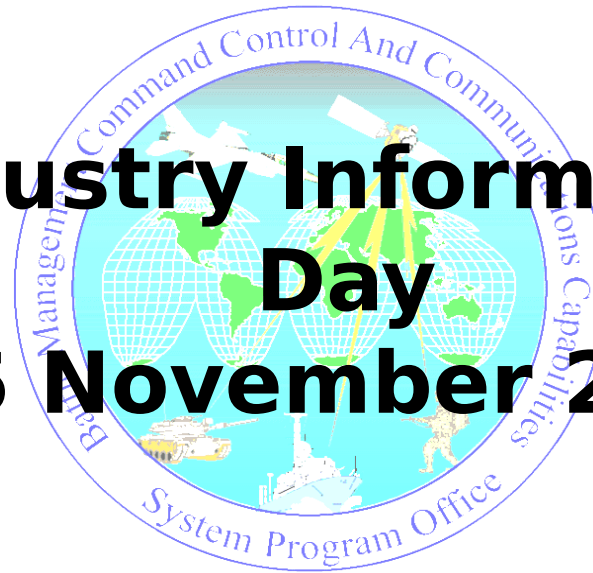


# NMCC Industry Information Day Agenda

- **0800 - 0900 REGISTRATION & SIGN-IN**
- **0900 - 0915 INTRODUCTION**      *Ms. Veneziano-Martin*  
*(Program Manager)*
- **0915 - 0930 OPENING REMARKS**      *Colonel Temple*
- **0930 - 0940 REMARKS**      *Colonel King (Director of AC)*
- **0940 - 1015 PROGRAM OVERVIEW**      *Colonel Szanto (Director of FA)*
- **1015 - 1100 TECHNICAL OVERVIEW**      *Sheila Hanson*
- **1100 - 1115 ACQUISITION SCHEDULE**      *Ms. Veneziano-Martin*
- **1115 - 1130 QUESTIONS & ANSWERS**

# **Battle Management Command Control And Communications Capabilities**

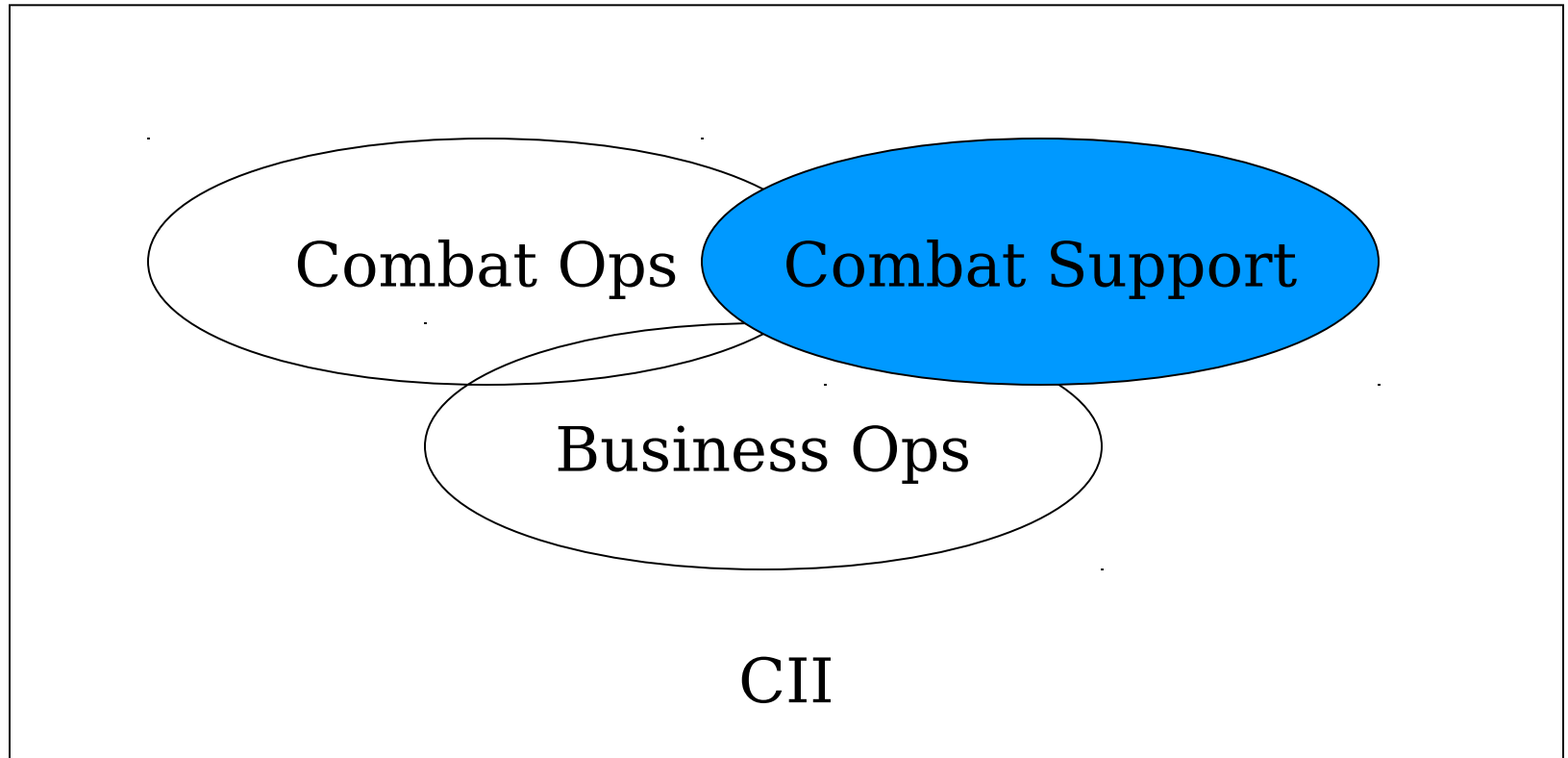
**Industry Information  
Day  
26 November 2002**



Presented By:  
Christopher King, Col, USAF  
BMC<sup>3</sup> Director  
ESC/AC  
(781) 271-5020

# C4ISR Enterprise

BMC<sup>3</sup> SPO Delivering Warfighting  
Capability



# BMC3 Capabilities Vision



BMC<sup>3</sup> SPO Delivering Warfighting  
Capability

**Be the Battle Management  
Command, Control and  
Communication Community's  
developer of choice for Command  
and Control systems**

# BMC<sup>3</sup> SPO – ESC/AC

## DAC/PEO

**Aerospace Operations  
Center Weapon System  
(AOC WS)**  
**System Program Director**  
**Col Pete Hoene**  
**757-225-1288**

**System Program Director**  
**Col Christopher King**  
**781-271-5020**  
  
**Dep System Program  
Director**  
**Col George Bremer**  
**781-271-8182**

**Air Force Mission  
Support System (AFMSS)**  
**Sys Program Director**  
**Col Bill Nelson**  
**781-271-7723**

**Operating  
Loc  
Eglin AFB**  
**Col Jake  
Thorn**  
**Lt Col  
McClary**

**Unit Level Ops**  
**Lt Col Mark Mol**  
**781-271-8626**

**AF Weather Weapon  
System**  
**Mrs. Judy Bible**  
**781-271-8495**

**ESC/OL-A**  
**Offutt AFB**

**Peace Shield - Saudi  
Arabia**  
**Richard Fisher**  
**011-966-498-6728**

**Peace  
Shield**  
**Mr Lee  
Hayes**  
**781-271-  
2078**

**Battle Management &  
Crisis Actions Systems**  
**Col David Temple**  
**781-271-8248**

**Battle Crisis Systems**  
**Maj LaPuma**  
**781-271-8010**

**Air Sovereignty Ops  
Ctr**  
**Mr. Donahue**  
**781-271-8344**

**DCAPES**  
**Mr. Laurance Miller**  
**781-271-8183**

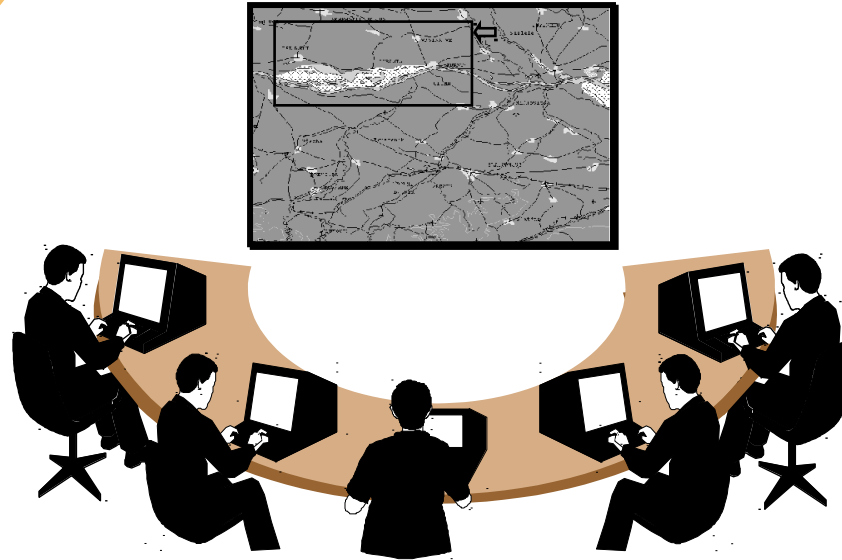
**AEWS**  
**Mr. Rod Young**  
**781-271-7819**

**CSCS**  
**Mr. Bard Connally**  
**781-271-3679**

**Info Tech & Ops**  
**Lt Col Dean Phillips**  
**781-271-6976**

**Dev Planning &  
Integration**  
**Lt Col Al Duenas**  
**781-271-7824**  
**Contracts**  
**Mrs. Lisa Clark**  
**781-271-2179**

**Financial Management**  
**Mrs. Michelle Rogers**  
**781-271-8287**



# National Military Command Center Program Overview November 2002

Electronic Systems Center

# NMCC Vision

- Provide countries of Central And Eastern Europe with a competitively-priced, capable, national command center for crisis management
  - Encourage regional cooperation
  - Utilize civil and military resources
  - Provide countries the tools to manage crisis

# NMCC Development History

- OSD decided to fund promotion of PfP countries using Warsaw Initiative Funds (WIF)
- NMCC Conference – Sofia, Bulgaria - Jun 99
  - Introduced NMCC concept to interested countries
  - Created NMCC Working Group:
    - Countries' involvement a requirement of the WG process
    - Cooperatively establish systems requirements
    - Cooperatively build systems architecture
- Working Group #1 – Predeal, Romania - Sep 99
  - Jointly developed Concept of Operations (CONOPS)
  - Included both civil and military input



# NMCC Development History

- Working Group #2 – Piestany, Slovakia - Feb 00
  - Jointly developed technical architecture
  - Goal of ensuring systems architecture meets national, regional & coalition requirements
- Working Group #3 – Wroclaw, Poland - Jun 00
  - Continued to provide forum for refining program
  - Provided countries input into initial acquisition planning
- Working Group #4 – Bled, Slovenia - Oct 01
  - Reviewed technical requirements

# NMCC System

- Military system with civil agency liaisons designed for rapid response to crises
- National-level joint information processing, display and distribution system to support crisis management
  - Modern national-level command center capability
  - Complement existing and planned national capabilities
- Centralized, automated capability for coordinated response to military and civil crises
- 24 hour/7 day operations
  - Augmented during times of crises
- Interfaces with Service headquarters, national military information sources [e.g., Air Sovereignty Operations Center (ASOC)], national civilian agencies and international organizations

# NMCC Program Responsibilities

## United States - System Details

- |  |  |
|--|--|
| <ul style="list-style-type: none"><li>▪ System hardware/software</li><li>▪ System integration</li><li>▪ Training</li><li>▪ Sustainment support</li><li>▪ Facility requirements identification</li><li>▪ Interface specifications</li></ul> | <ul style="list-style-type: none"><li>▪ Systems architecture hardware and software; acquired, delivered and installed system</li><li>▪ Software and hardware integrated into a comprehensive center</li><li>▪ On-site and regionally-based</li><li>▪ Two years of spares and maintenance</li></ul> |
|--|--|

# NMCC Program Responsibilities

## Partner Nation - Facilities & Support

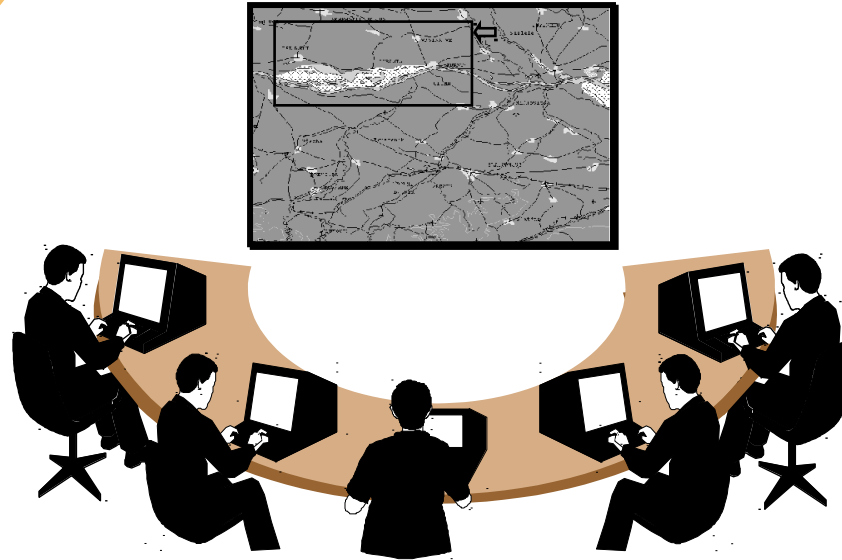
- NMCC facility and services (space, power, cooling, etc.)
- Voice and data communications for command and coordination
- Partner Nation data inputs to NMCC system in prescribed format
- Interface development/implementation for existing Partner Nation systems (hardware and software)
- Database administration and maintenance

## Details

- Space within a building with power And HVAC
- Communications links, including external lines and switches
- Required data, such as, manpower, logistics, geographic
- Establish regional links (PIMS etc.)
- Establish manpower and procedures for system administration

# NMCC Management Transition

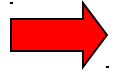
- NMCC is transitioning to a new management team
  - ESC/AC – BMC3 Director -  
Col Christopher King
  - ESC/ACM – Program Manager -  
Ms Vinita Veneziano-Martin



# National Military Command Center System Overview November 2002

Electronic Systems Center

# Briefing Outline



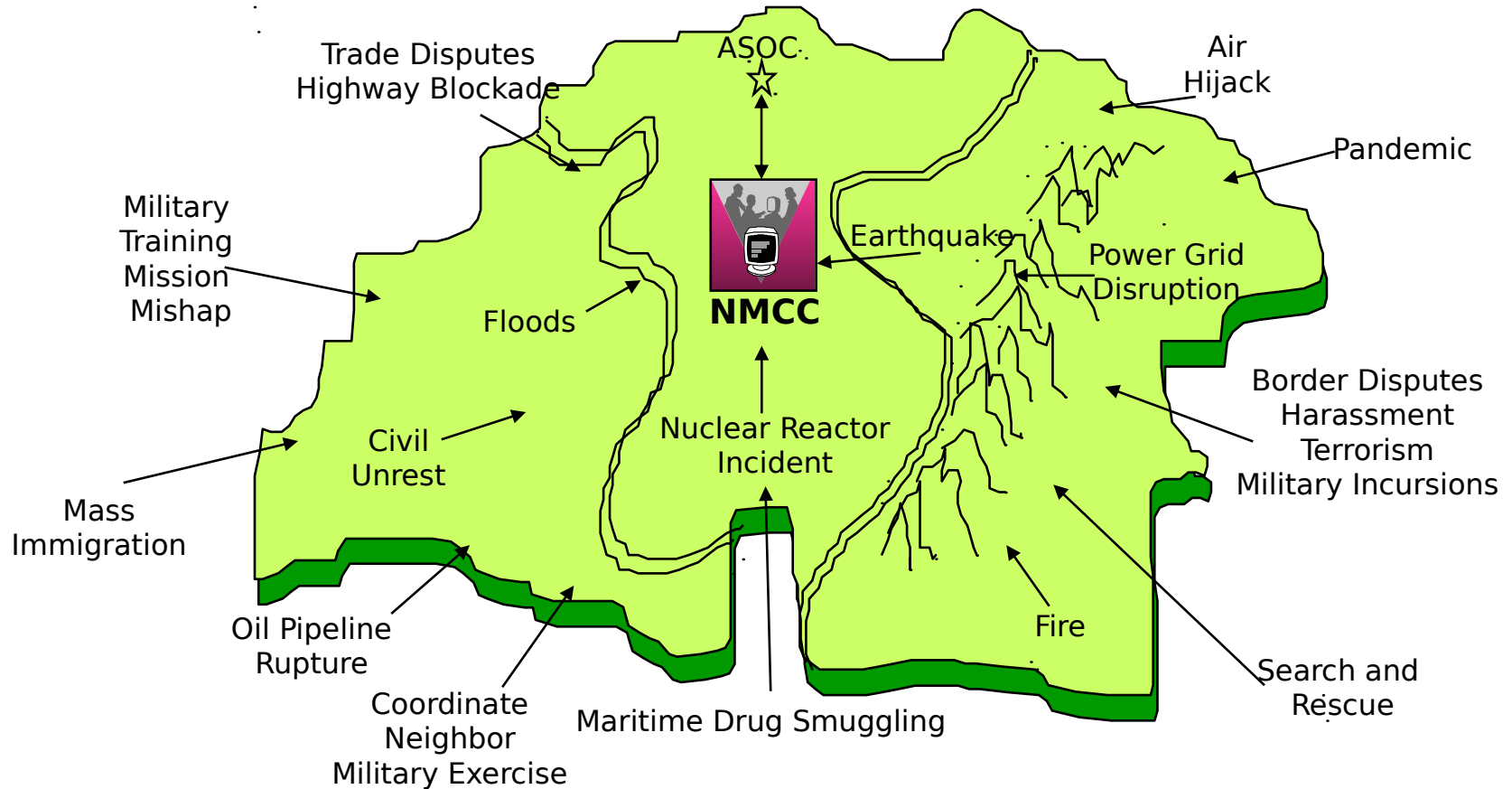
- Operational Overview
- Technical Overview

# Operational Capabilities Overview

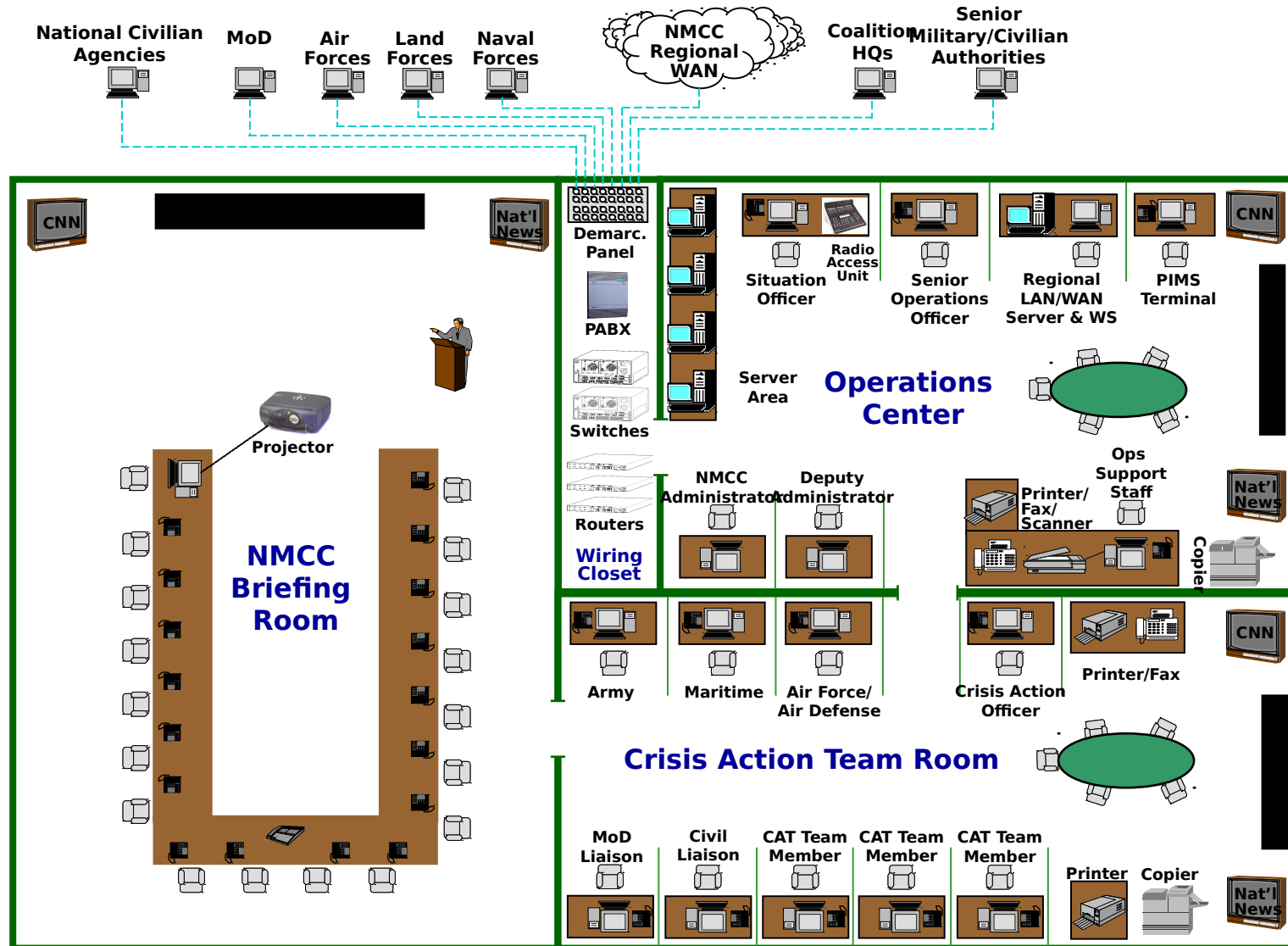
- Secure, classified centralized facility to provide national-level coordinated management for military and civil crisis response
- Operates at the national SECRET level
- Controlled and operated by the MoD, with civilian agency participation/liaisons
- Interfaces with national and regional/coalition agencies and organizations
- Operates on a 24-hour / 7-day schedule
- Staffing augmented during crisis situations



# NMCC Support to Crisis Management Operations

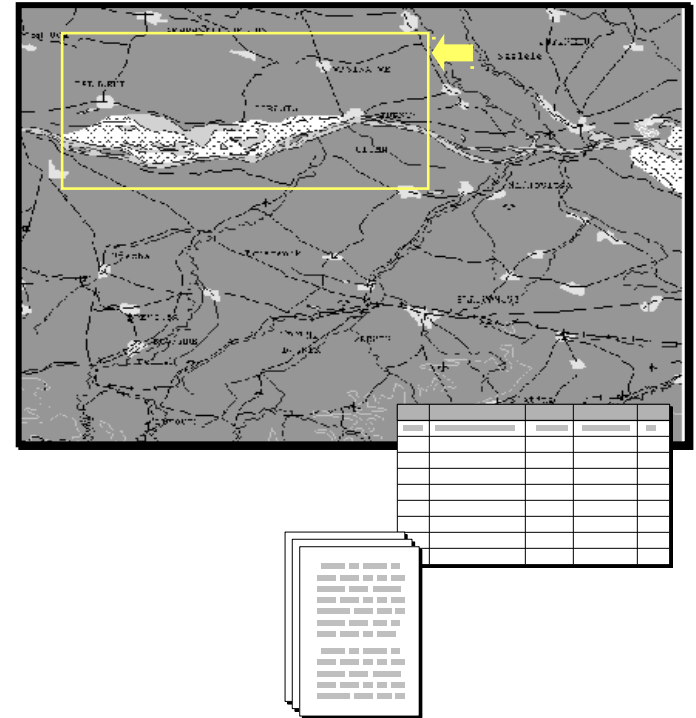


# NMCC Facility Layout - Notional



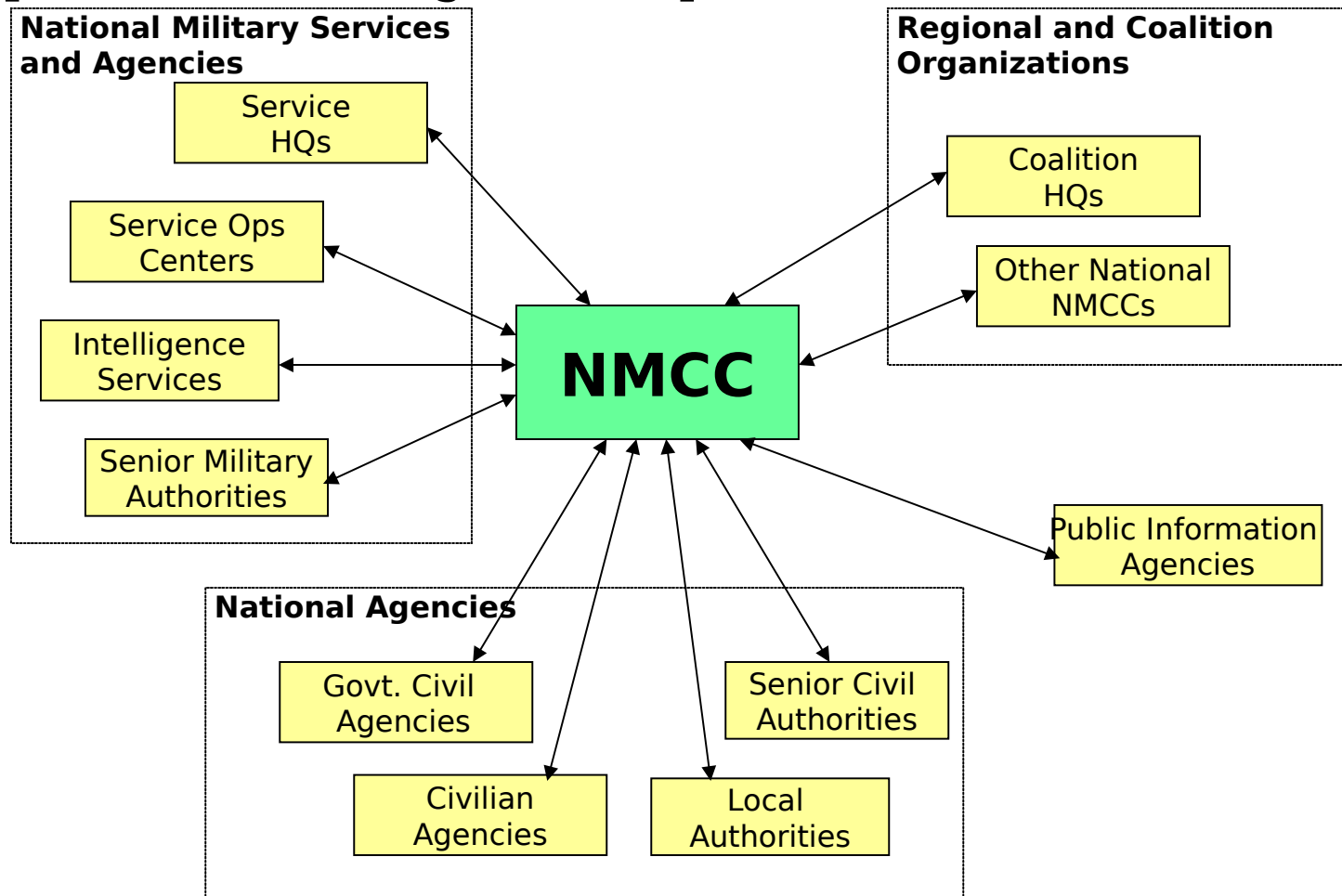
# NMCC Operational Functions

- **Primary functions include:**
  - Situation/crisis monitoring
  - Situation/crisis assessment
  - Information distribution
  - Report generation
  - Database management
  - Coordination
  - Notification
  - Planning
  - Execution
  - After-action reporting/analysis
- **Other functions supported:**
  - Operator training
  - Test and Exercises

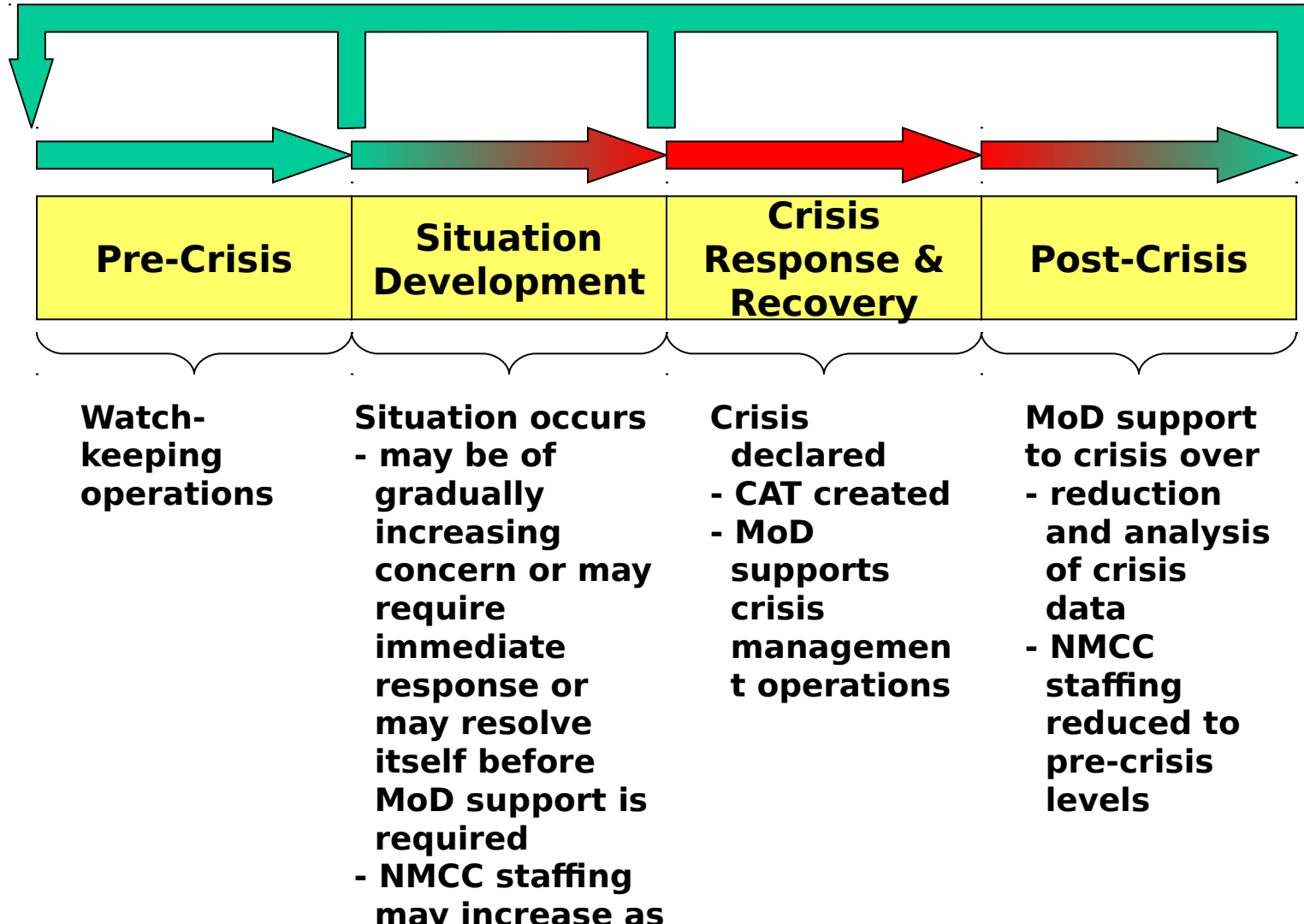


# Information Sharing

NMCC works with other organizations and agencies to support crisis management operations



# Crisis Management Periods



# Pre-Crisis Operations

- Day-to-day, no crisis, “watch-keeping” operations
- Situation monitoring - maintain up-to-date situation information
  - Information: weather, current events, planned activities, resource status, shared data updates, reference data updates, intelligence information...
  - Sources: public information sources, Services, other military/civilian agencies and organizations
  - Tools: email, fax, messaging, data link, internet/intranet, telephone, audio/visual (e.g., radio, television, VTC), remote alarms/systems
- Situation assessment - determine possibility of potential crises
  - Tools: GIS/COP, database query tools, report generator
- Status reporting - provide daily status reports
  - Tools: graphical and textual report generation tools, briefing presentation system, email, fax, internet/intranet, telephone, VTC
- In addition, NMCC will support training and exercises

# Situation Development

- Potential for a crisis or an actual crisis has been identified
- Situation monitoring - maintain up-to-date situation information
  - Information: weather, current events, planned activities, resource status, alerts and warnings, shared data updates, reference data updates, intelligence information...
  - Sources: public information sources, Services, other military/civilian agencies and organizations
  - Tools: email, fax, messaging, data link, internet/intranet, telephone, audio/visual (e.g., radio, television, VTC), remote alarms/systems
- Situation assessment - determine nature and possibility of potential crises
  - Tools: GIS/COP, database query tools, report generator
- Coordination - request, gather, share information with other organizations
  - Tools: situation monitoring tools
- Notification - notify senior authorities of a potential/existing crisis
  - Tools: usually voice communications
- Status reporting - provide status reports
  - Tools: graphical and textual report generation tools, briefing presentation system, email, fax, internet/intranet, telephone, VTC

# Crisis Response and Recovery

- Crisis has been declared, CAT activated
- Crisis monitoring - maintain up-to-date situation information
  - Information: weather, current events, current and planned activities, resource status, alerts and warnings, shared data updates, reference data updates, intelligence information...
  - Sources: public information sources, Services, other military/civilian/foreign agencies and organizations involved with responding to crisis
  - Tools: email, fax, messaging, data link, internet/intranet, telephone, audio/visual (e.g., radio, television, VTC), remote alarms/systems
- Crisis assessment - continue to determine nature and scope of crisis
  - Tools: GIS/COP, database query tools, report generator
- Planning - establish command relationships based on the nature of the crisis, review existing plans and COAs for applicability and recommend any changes
  - Tools: office automation tools, email, fax, messaging, internet/intranet, telephone, VTC



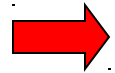
# Crisis Response and Recovery (concluded)

- Execution - disseminate operational decisions of MoD/General Staff; monitor execution of decisions and resulting deployment/ employment of forces; identify conflicts/issues and recommend COAs
  - Tools: email, fax, messaging, data link, internet/intranet, telephone, VTC
- Coordination - request, gather, share information with other organizations
  - Tools: email, fax, messaging, data link, internet/intranet, telephone, VTC
- Status reporting - provide status reports
  - Tools: graphical and textual report generation tools, briefing presentation system, email, fax, internet/intranet, telephone, VTC

# Post-Crisis Operations

- MoD support to a specific crisis has ceased
- After-action reporting/analysis - reduce compiled data and analyze operations, generate after-action reports/lessons learned, update planning documents including joint planning documents if necessary
  - Tools: database tools, office automation tools, telephone, email, VTC
- Stand-down - reduce staffing to non-crisis level; notify military/civilian/foreign organizations of cessation of MoD support; coordinate with regional/coalition partners, if appropriate, in the termination of the crisis management support
  - Tools: telephone, email, fax, VTC

# Briefing Outline



- Operational Overview
- Technical Overview

# NMCC Technical Architecture Description

- TAD defines one part of overall architecture description
  - Defines and specifies codes for building a system
  - Standards, directives, guidance and recommended approaches
  - NATO C3 Technical Architecture and Common Standards Profile (CSP) are basis, augmented with U.S. Joint Technical Architecture (JTA)

# Technical Architecture Functional Areas

<b>User Interface Services</b>	Human Computer Interface Graphics	Symbology Video Teleconferencing
<b>Information Processing Services</b>	Operating Systems Internationalization COP/GIS CAX/M&S	CBT/Online Training/ Online Help Data Management
<b>Information Interchange Services</b>	Document Data Interchange Applications Graphics Interchange Processing	Web-based Tactical Data Link
<b>System and Network Management</b>	Transport Control Protocol (TCP) Management	
<b>Communications Services</b>	Local Area Networks Regional Local Area Network	Wide Area Network External Interfaces
<b>Security Services</b>	Anti-virus Network Intrusion Detection Management Access Control	Firewall Security Key

# NMCC Technical Requirements Document

## Major Sections

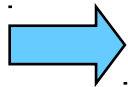
## Description

**Scope**

**Provides overview of TRD**

**Applicable Documents**

**Identifies documents referenced in TRD**

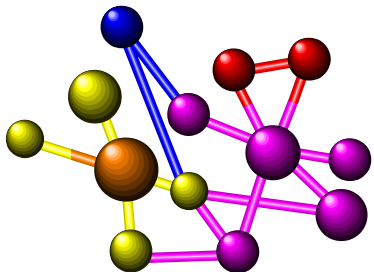


**System Requirements**

**Defines requirements that NMCC must meet**

**Quality Assurance Provisions**

**Describes how NMCC requirements will be verified**



# NMCC TRD - System Requirements

## Major Sub-Sections

- **System Definition**
- **Performance Characteristics**
- **System and Functional Characteristics**
- **External Interfaces**
- **System Quality Factors**
- **Precedence**

## Description

**System overview**

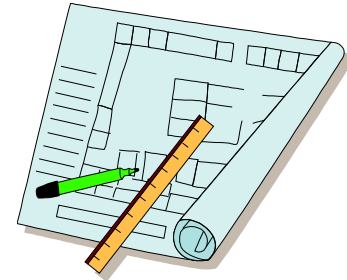
**Defines minimum system capacities, system load**

**Defines how system will operate**

**Facility interfaces, data interfaces**

**Reliability, maintainability, availability, expandability**

**Addresses how to prioritize requirements**



# NMCC TRD - System

## Requirements:

## Performance Characteristics

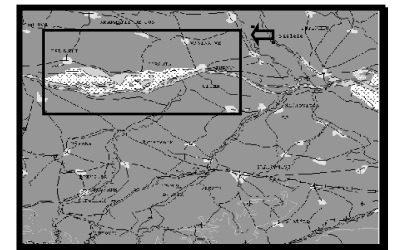
- Minimum System Capacities
- System Load
- System characteristics include number of:
  - System Tracks
  - NMCC External Interfaces
  - National NMCCs connected to Regional WAN
  - Operator Workstations / System Consoles
  - Operator Actions





# System Requirements - System and Functional Characteristics

- Hardware Configuration Components
  - Workstations, servers/storage devices, printers, scanners, large screen display devices / projectors, LAN infrastructure, firewall, VTC
- Display functions/capabilities
  - Display Processing and Generation
  - Preformatted Displays
  - Comment Line and Command Advisory Text
  - COP Situation and Tabular Displays, including
    - Symbology
    - Data Entry
    - Data Requirements
  - Display Performance Requirements
  - User Interaction
  - Alarms



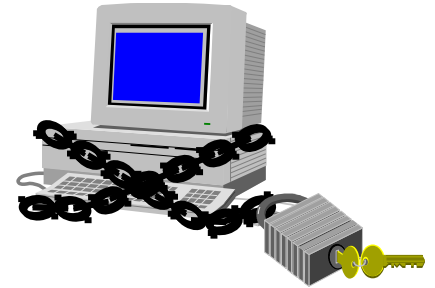
# System Requirements - System and Functional Characteristics (continued)

- Relational data processing, queries, database reports, track management
- Data Management, Office Automation, Web Browsing, E-Mail
- Data Recording and Retrieval
  - Data recorded always, data recorded as designated by operator
- Data Reduction
  - Mass storage media outputs, hardcopy outputs
- Test and Exercise
  - Internal simulation
- Computer Based Training
- Data Publishing

# System Requirements - System and Functional Characteristics (concluded)

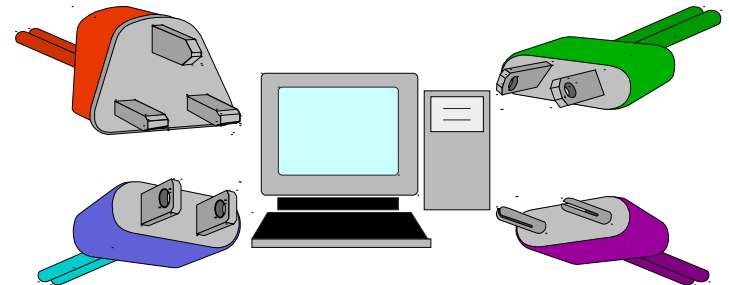
## System Security

- System high mode
- Discretionary Access Controls
- Resource Control
- Identification and Authentication
- Screen Locks
- Labeling
- Audit
- Specific Integrity Requirements
- Specific Availability Requirements
- Network Related Requirements
  - Firewalls, Web Servers, E-mail
- Performance Monitoring
- Initialization
- Fault Handling and Recovery



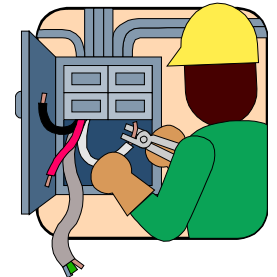
# System Requirements - External Interfaces

- Facilities Interface
  - Commercial electrical service
  - Grounding system
- Data Interfaces
  - Interface Control Document (ICD)
    - Communication services standards and protocols
    - Interface categories and standards
    - Information exchange categories and protocols
      - Tactical data links
      - E-mail / messaging
      - Web
      - Database / file transfer
      - VTC

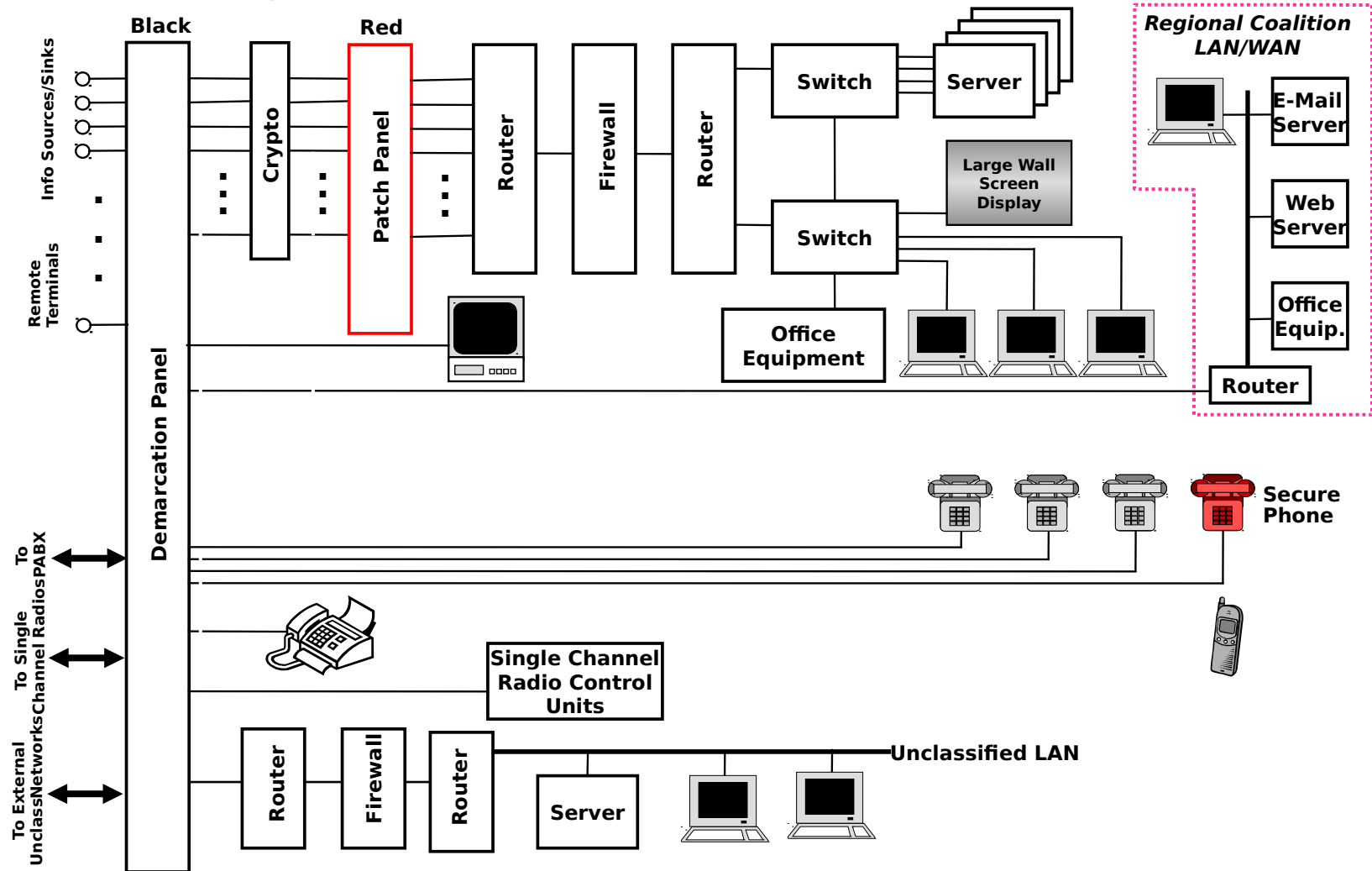


# System Requirements - System Quality Factors

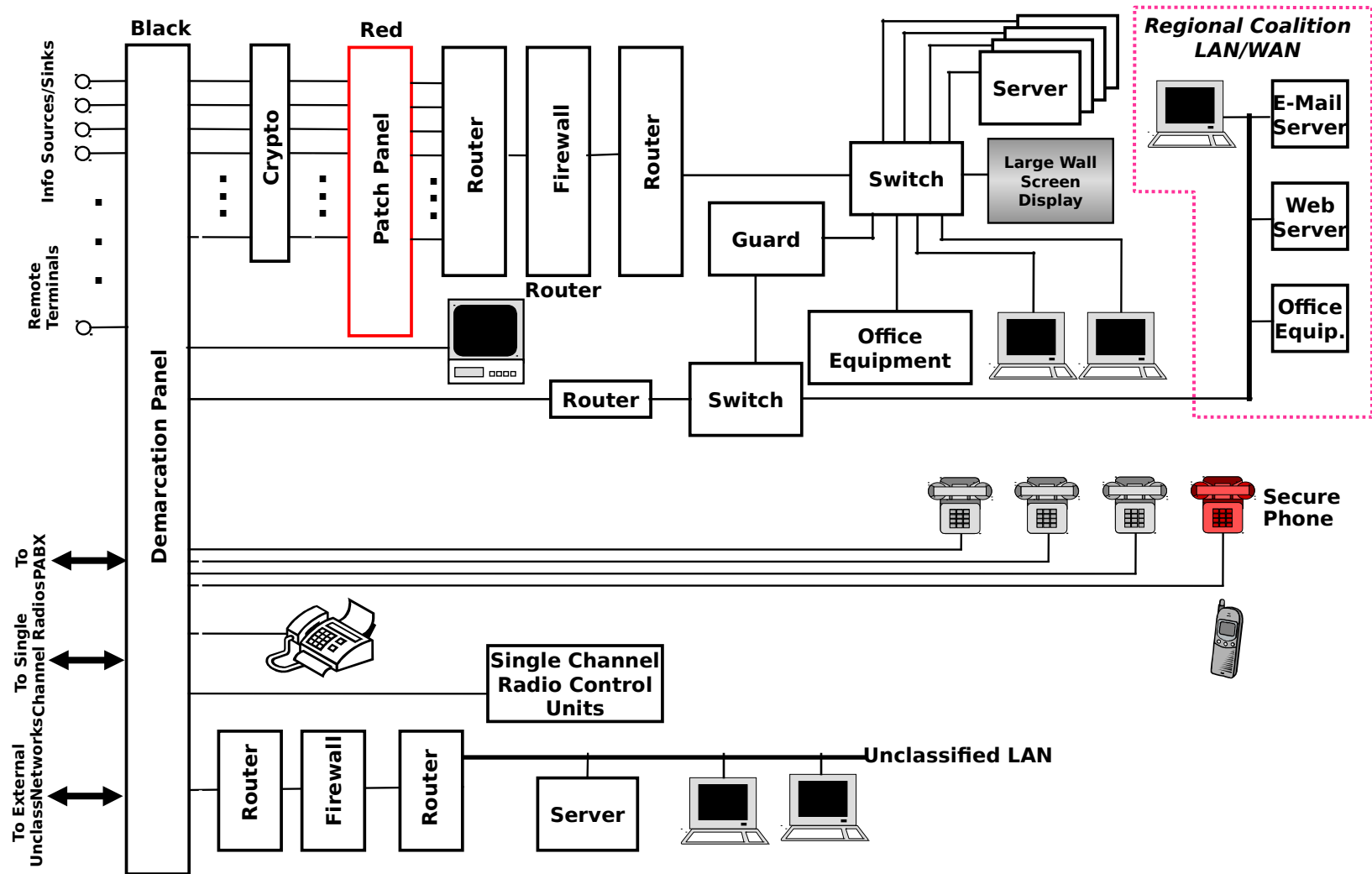
- System Reliability
  - Mean Time Between Critical Failures
  - Mean Time Between Corrective Maintenance Actions
- System Maintainability
  - Mean Time To Repair
- System Expansion and Flexibility
  - Data Processing Equipment (DPE) Growth
  - Modularity
  - System Modifications and Expandability
- System Availability
  - Operational Availability



# Notional Initial System Configuration



# Notional Growth System Configuration



# National Military Command Center (NMCC)

## Industry Information Day

26 November 2002



Ms. Vinita Veneziano-Martin  
NMCC Program Manager  
ESC/ACM  
781-271-2135



# Groundrules

**BMC<sup>3</sup> SPO Delivering Warfighting Capability**

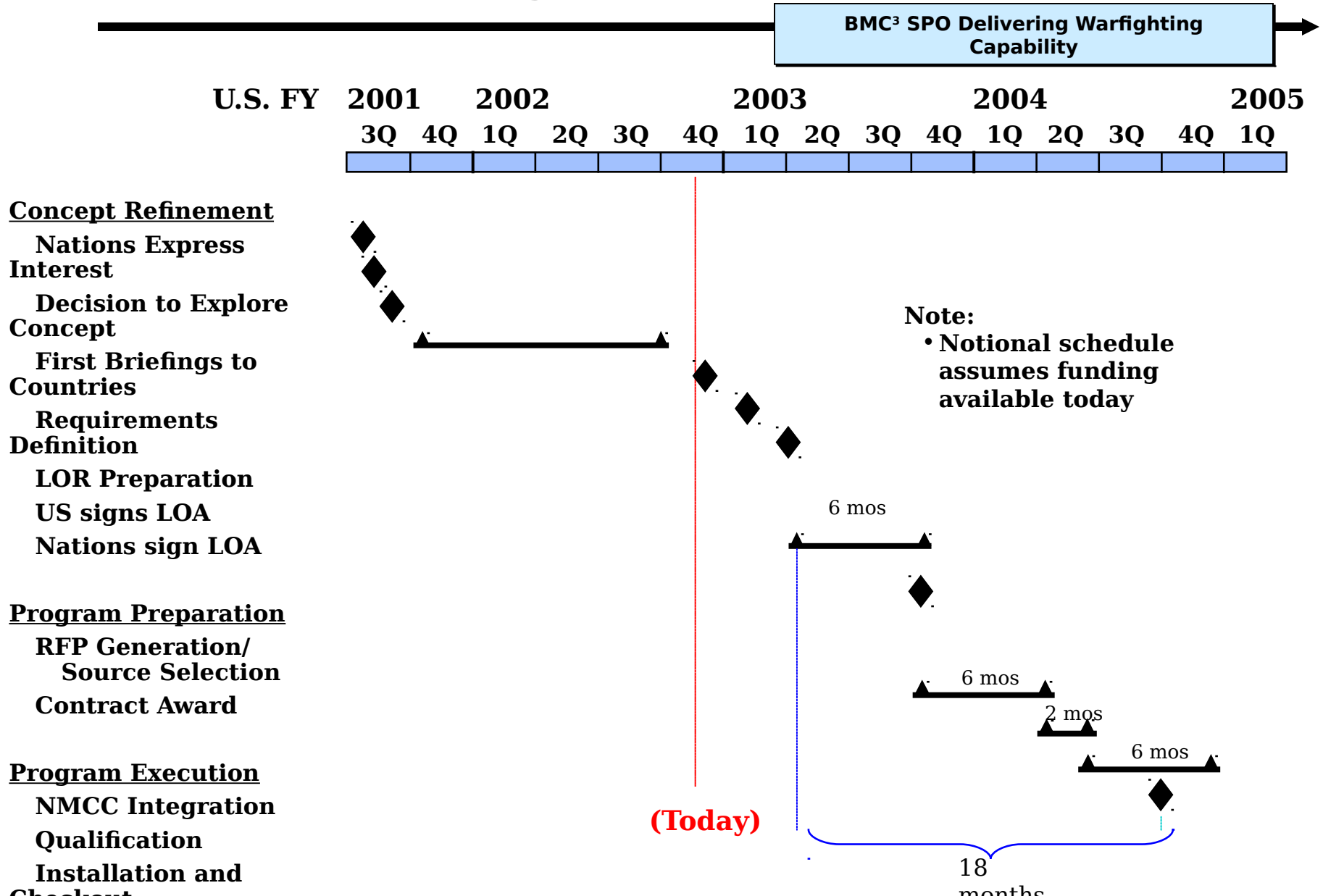
- HERBB will be principal means of communication
  - Questions & Answers
  - Announcements
  - Draft RFP
  - Any other related documentation
- Questions & Answers for today's session
  - Questions to be written on cards provided at check-in
  - Collected by PCO, Mr. Dave Conrad
  - All questions and their responses to be published on HERBB
- List of attendees for today's conference to be published on HERBB (for teaming and sub-contracting opportunities) unless you notify us not to

# Notional Acquisition Schedule

BMC<sup>3</sup> SPO Delivering Warfighting  
Capability

- Market Research Oct-Dec 02
- 2 LOA's Signed Nov 02  
(3<sup>rd</sup> LOA: Latvia) (Expected Dec 02)
- Acquisition Strategy Feb 03
- Source Selection Jun 03
- Contract Award Jun 03

# Notional Program Schedule



# HERBB - NMCC


BMC<sup>3</sup> SPO Delivering Warfighting Capability

Business Opportunities - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Home Search Favorites History Print W

Address [http://herbb.hanscom.af.mil/esc\\_opps.asp?rfp=R130](http://herbb.hanscom.af.mil/esc_opps.asp?rfp=R130) Go Links



## Business Opportunities

## National Military Command Center

[Home](#) | [Disclaimer](#) | [Feedback](#) | [User Info](#) | [Help](#)

Acquisition Description

Acquisition Information

Program Manager

Contracting Officer

Page Manager

[Register to Receive E-mail Updates on this Acquisition](#)  
[View List of Companies Interested in Partnering](#)

[Make Your Company Information Public](#)  
E-mail comments to the page manager, Micheal Nading

### Acquisition Description

National Military Command Center  
Please refer to the Memorandum for Interested Parties for additional information.

### Acquisition Information

[top](#)

CBD Category: **Miscellaneous**

Solicitation Status: **Pre-Solicitation**

Acquisition Type: **Systems**

Acquisition Location: **Hanscom**

Last Update: **11/6/2002 5:31:15 PM**

Solicitation Number: **TBD**

Solicitation Release Date:

Proposal Due Date:

Contract Award Date:

NAIC Code:

Dollar Amount: **1M - 10M**

### Available Documents

Pre-solicitation Documents

File Description	Download Native Format	File Size	Download Acrobat Format	File Date
EM 2002 Announcement	<a href="#">DOC</a>	216,576		11/06/2002
Sources Sought	<a href="#">DOC</a>	28,160		11/06/2002
National Military Command Center (NMCC) Interface Control Document (ICD) , Revision 3.0; 20 August 2001	<a href="#">DOC</a>	638,976	<a href="#">PDF</a>	04/12/2002
National Military Command Center (NMCC) Technical Requirements Document( TRD) , Revision 3.3; 11 April 2001	<a href="#">DOC</a>	464,896	<a href="#">PDF</a>	12/13/2001
Concept of Operations	<a href="#">DOC</a>	486,912	<a href="#">PDF</a>	12/01/2000
Technical Architecture Description	<a href="#">DOC</a>	932,352	<a href="#">PDF</a>	12/01/2000
MEMORANDUM FOR INTERESTED PARTIES	<a href="#">DOC</a>	24,576	<a href="#">PDF</a>	12/01/2000

**NOTE:** If you have problems downloading files, please e-mail the page manager, [Micheal Nading](#).

### Program Manager

[top](#)

[Viewers](#) for Microsoft Office 97 and several other applications are available [here](#).

Local intranet

Start Microsoft... Inbox - ... NMCC In... BMC3\_N... Business... Business ... Microsoft... 10:56 AM

# NMCC Documents on HERBB

**BMC<sup>3</sup> SPO Delivering Warfighting Capability**

File Description	File Size	File Date
EM 2002 Announcement	216,576	11/06/2002
Sources Sought	28,160	11/06/2002
National Military Command Center (NMCC) Interface Control Document (ICD), Revision 3.0; 20 August 2001	638,976	04/12/200
National Military Command Center (NMCC) Technical Requirements Document (TRD), Revision 3.3; 11 April 2001	464,896	12/13/2001
Concept of Operations	486,912	12/01/2000
Technical Architecture Description	932,352	12/01/2000
MEMORANDUM FOR INTERESTED PARTIES	24,576	12/01/2000

# Follow-on Sources Sought

**BMC<sup>3</sup> SPO Delivering Warfighting  
Capability** →

- Capabilities to be evaluated:
  - Offerors NMCC Concept – according to NMCC requirement (cost, schedule, performance characteristic)
  - Demonstrated experience as Lead System Integrator (LSI) of complex military systems and complex software applications
  - Extensive experience with FMS program (especially in Eastern European and NATO nations)
  - Extensive experience integrating complex relational data bases (especially in Eastern European and NATO nations)
  - Verifiable capability to design, develop and implement:
    - Systems and applications to collect filter, enhance & store information from military and civilian source feeds
    - Interactive, multi-layered displays
    - Presentation and reporting applications
    - Separation of secure and classified information
  - History of proven project management methodology and performance
  - ROM cost (See Memorandum for Interested Parties on HERBB – 1 Dec 00)

# Subcontracting Plans

BMC<sup>3</sup> SPO Delivering Warfighting  
Capability

- Overseas sections not required in percentages for goals
- Must still adhere to DOD guidelines
  - Small Business - 23%
  - SDB - 5%
  - Women-owned - 5%
  - HUBZone - 2.5%
  - Service Disabled Veterans - 3%
  - Some variations are permissible except that SDB goal less than 5% requires approval by ESC/PK, Ms. Bonnie Taylor